

CLAIMS:

1. A woodworking machine comprising:

a support frame including a work surface for supporting workpieces;

5 a cutting tool supported by the frame and movable relative to the work surface to cut the workpieces supported by the work surface; and

a safety brake system configured to detect a dangerous condition between a person and the cutting tool, and to stop movement of the cutting tool upon detection of the dangerous condition;

where the safety brake system includes one or more single-use components mounted in a cartridge removably coupled to the support frame.

2. The machine of claim 1, where the cartridge is sealed against entry of

15 sawdust.

3. The machine of claim 1, where the one or more single-use components includes a fusible member.

4. The machine of claim 3, where the safety brake system includes a firing system adapted to melt the fusible member, and where the firing system is mounted in the cartridge.

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5. The machine of claim 4, where the firing system includes a capacitor.

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6. The machine of claim 1, where the safety brake system includes a brake pawl selectively movable to engage the cutting tool upon detection of the dangerous condition, and where the brake pawl is mounted in the cartridge.

7. The machine of claim 6, where the safety brake system includes a spring mounted in the cartridge and arranged to urge the brake pawl into contact with the cutting tool.

8. The machine of claim 7, where the safety brake system includes a fusible member mounted in the cartridge and arranged to hold the brake pawl spaced-apart from the cutting tool until the dangerous condition is detected.

9. The machine of claim 8, where the safety brake system includes at least one capacitor configured to store electrical charge to melt the fusible member upon detection of the dangerous condition, and where the capacitor is mounted in the cartridge.

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10. The machine of claim 1, further comprising at least one motor configured to drive the cutting tool, and a control system configured to determine if at least one of the single-use components mounted in the cartridge has been used, and where the control system is configured to prevent operation of the at least one motor if one of the single-use components has been used.

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11. The machine of claim 1, where the cartridge includes key structure, and

where the support frame includes corresponding key structure configured to engage the

15 cartridge key structure to prevent incorrect installation of the cartridge.

12. A woodworking machine comprising:

- a cutting tool adapted to cut a workpiece;
- a motor adapted to drive the cutting tool;
- a detection system adapted to detect a dangerous condition between a person and

5 the cutting tool; and

- a brake system adapted to stop the cutting tool upon detection of the dangerous condition, where at least part of the brake system is housed in a cartridge and the cartridge is sealed against entry of sawdust.

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13. The machine of claim 12, where the cartridge includes at least one opening sealed by a plastic film.

15. The machine of claim 12, where the cartridge includes at least one opening sealed by a metal film.

20. The machine of claim 12, where the brake system includes at least one brake pawl mounted in the cartridge, and where the brake pawl is selectively movable into contact with the cutting tool upon detection of the dangerous condition.

16. The machine of claim 12, where the brake system includes at least one
brake pawl and an actuator configured to move the brake pawl into contact with the
cutting tool, and where the actuator is mounted in the cartridge.

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17. A woodworking machine, comprising:

a support frame;

a cutter supported by the support frame;

a brake cartridge mountable on the support frame and including a brake pawl
adapted to selectively engage and stop the cutter; and

a brake positioning system associated with the support frame and adapted to
receive and operably position the brake cartridge relative to the cutter.

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18. The machine of claim 17, where the brake positioning system allows the
cartridge to be adjusted to accommodate different sized cutters.

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19. The machine of claim 17, where the brake positioning system includes a
pivot on which the cartridge is mounted, and where the position of the brake cartridge
relative to the cutter is adjusted by rotating the cartridge on the pivot.